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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/619,110	07/15/2003	Shigeru Hosoe	02860.0747	5811

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EXAMINER

DEUBLE, MARK A

ART UNIT

PAPER NUMBER

3651

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/619,110	HOSOE ET AL.	
	Examiner	Art Unit	
	Mark A. Deuble	3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5,7-14,17 and 23-49 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 23-49 is/are allowed.
- 6) ☒ Claim(s) 1-5,10-14 and 17 is/are rejected.
- 7) ☒ Claim(s) 7-9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 1-5, 10-14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fujimoto et al. (U.S. Patent No. 6,370,915).

Fujimoto et al. shows in Figures 18 and 20 a load conveying device comprising a plurality of glass load supporting devices 15, each having a through hole passing therethrough in a gravity direction arranged so that each hole aligns in series (or parallel depending on the direction from which the load is supplied to the device), and a fluid supplying device (not shown, but see col. 11, ln. 23-45) that supplies a fluid such as nitrogen into the through hole in varying amounts depending on the weight of the load supplied to the device. This allows a load dropped into the through hole from a top of the through hole to be supported under a floating condition by a force of the fluid in the through hole until the force of the fluid is changed and a shutter 14 is opened to allow the load to drop from a lower end of the through hole to an outside. The top section of the through hole has a tapered wall section whose inside diameter increases toward a top open end so that the tapered wall section forms an angle between 0° and 90° with the lower portion of the through hole. Furthermore, because it is preferable to have the corners of the funnel shape rounded to guide material smoothly (col. 6, ln. 15-20), the rounded upper edge of the device 15 would form a tapered end section having a taper angle greater than that of the

tapered well section below it. As can be seen in Fig. 20, the height of the tapered wall section is slightly larger than the height of the load so that it is between 0.2 times and 2.0 times the height of the load. A heating device 13 adjacent the device 15 raises the temperature of the load and the fluid around it to much higher than room temperature so that the load is conveyed and heated in a fused condition close to its glass transition temperature. The load as illustrated appears to be spherical with no deviation and if the load is a glass gob with an irregular shape, such surface defects may be eliminated during the heating and floating operation of the device so that a deviation from spherical of the load in either case is half of less than the average radius of the load. Thus, Fujimoto et al. shows generally all the structure required by claims 1-5, 10-14, and 17-22 except for the fluid supplying device which can supply a fluid into the through hole through the inner circumferential plane of the through hole because Fujimoto et al. does not disclose in detail how the fluid is supplied into the through hole. However, the fluid is supplied to the through hole in a way that makes the load float as required by the claims is therefore the fluid supplying device of Fujimoto et al. is deemed to be functionally equivalent with the fluid supplying device of the present invention.

In regard to the limitation of claim 1 that the load supporting device is "for allowing a load to move through the top opening of the through hole and through the bottom opening of the through hole without changing the size of the through hole", it is noted that the load supporting device of Fujimoto et al. has a through hole that is expanded with the opening of the shutter to allow a load to move through the top opening of the through hole and through the bottom opening of the through hole. However, the claims are directed to an apparatus that *comprises* such a load-supporting device. The load supporting device of Fujimoto et al. could be operated

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so that a load is allowed to move through in this fashion if the shutter were removed and through the top opening of the through hole and through the bottom opening of the through hole without changing the size of the through hole and therefore it comprises such a through hole.

Allowable Subject Matter

3. Claims 23-49 are allowed.
4. Claims 7-9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark A. Deuble whose telephone number is (571) 272-6912. The examiner can normally be reached on Monday through Friday except for alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene O. Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

md


GENE O. CRAWFORD
SUPERVISORY PATENT EXAMINER